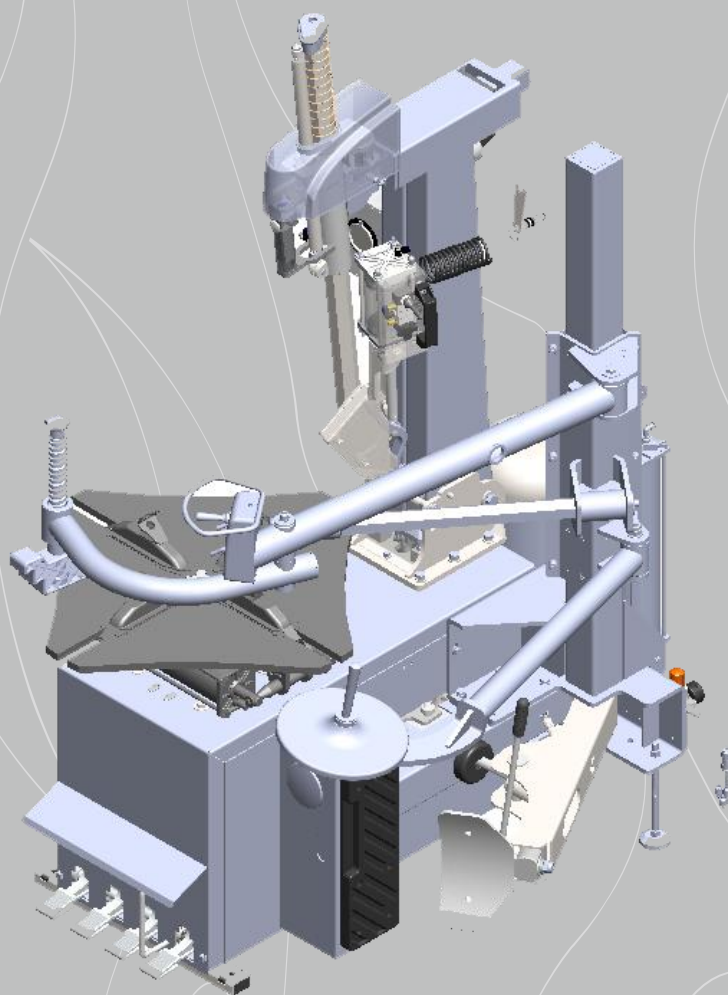


TYRE CHANGER

USER MANUAL






C61CN


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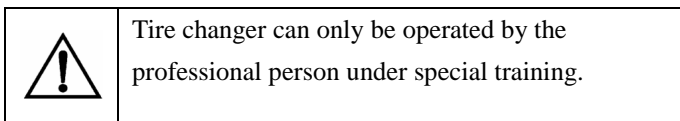
Symbol and code printed

In the manual, the following symbol and code is convenient for reading

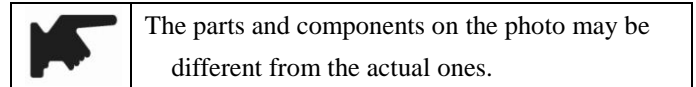
	Need careful operation
	Prohibition
	May cause the danger to the operator
Bold	Important information

	Warning: Before lift and any operation, carefully read the chapter 7 “Installation” in which it is the description of the proper operation for the better lift.
---	--

☞ Main operation part (as Fig 1)



This manual is integrated with the products. When the machine is resold, the manual must be provided to the new owner.





1. Introduction

1.1 Introduction

The product is based on the principle of the best. Following the simple instruction in the manual can guarantee the correct operation and prolong the service life of the machine. Read thoroughly the instruction manual and make sure that you understand it correctly.

1.2 Nameplate of the tire changer

The full description of the model and series number will help our technical assist department to provide the service easier and also it is convenient to deliver the spare parts. For your convenience, we will add the data of the tire changer into the following frame. If the data in the manual is different from the data on the nameplate, we will consider the data attached on the machine to be the correct one.

	
Model: <input type="text"/>	Serial No.: <input type="text"/>
Voltage: <input type="text"/>	Frequency: <input type="text"/>
Phase: <input type="text"/>	Output Power: <input type="text"/>
Current: <input type="text"/>	Weight: <input type="text" value="125kg"/>
Date of Manufacture: <input type="text"/>	
	

1.3 Remain of the manual

To correctly use this manual, we propose the following suggestions:

- Keep the manual at the place easy to take;
- Keep the manual at the moisture-proof place;
- Properly use the manual and do not damage it;
- The operator must be familiar with the instruction and procedure of the manual.

1.4 General security measure

2. General information

2.1 Purpose

This tire changer is special designed and manufactured for mounting and demounting rim.

Herewith, the manufacturer will not be responsible for the damage arising from the operations improper, incorrect and unreasonable.

2.2 Instruction

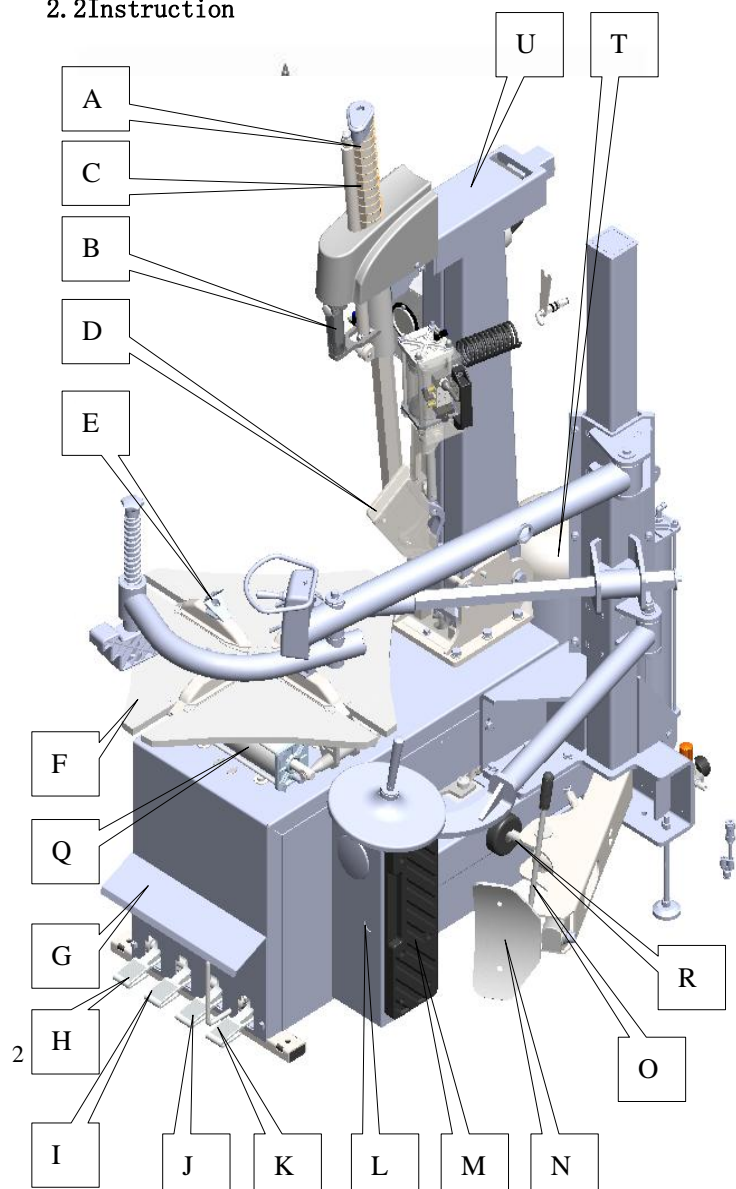


Fig2-1

- A. vertical shaft spring
- B. handle valve lock button
- C. hexangular shaft
- D. tool head
- E. clamping jaw
- F. turntable
- G. pedal assembly decal
- H. column tilting pedal
- I. clamping pedal
- J. bead breaking pedal
- K. turntable rotation pedal
- L. crowbar inserting hole
- M. wheel supporting rubber
- N. bead breaker blade
- O. bead breaker blade handle
- P. bead breaker arm
- Q. clamping cylinder
- R. bead breaker cylinder
- T. air tank
- U. column
- V. inflation gauge container
- W. horizontal arm
- X. lock cylinder

2.3 warning decal



Keep hand away from tire during operation

Before use, carefully read the manual.

When operation, wear protection.



Electrical shock!



Do not reach any part of your body under the tool head.



When breaking bead, the bead breaking blade will quickly move leftwards. The operator should not stand between the blade and tire.



Note: when break the bead, the opened clamp cylinder may injury the hand of the operator. Remember, do not touch the side wall of the tire.



When clamping the rim, do not reach your hand or other parts of the body in between the clamp & the rim.



Do not stand behind the column to avoid the column from injuring the persons when swing.



Wear gloves.



Read the user manual.



Wear goggles.



During maintenance, switch off the power supply.

Security position indication

- Pay attention to keep the safety labels complete. When it is not clear of missing, you should change the new label.
- You should let the operators see the safety labels clearly and understand the meaning of the label.

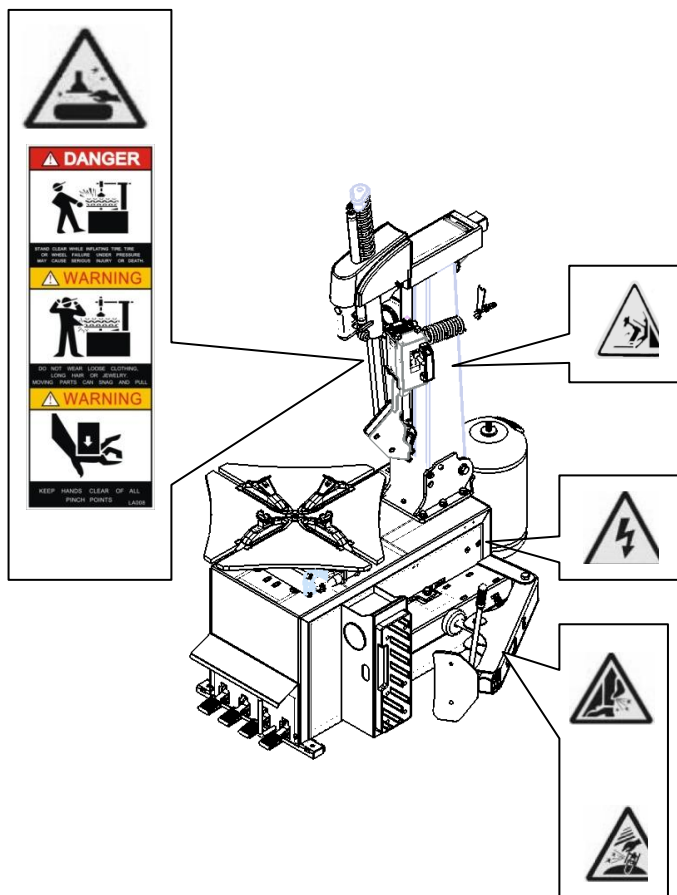


Fig 2-2

2. 4Technical specification (standard configuration):

Bead breaking force (10bar)	2500kg
Work pressure	10bar (145psi)
Max. inflation pressure	3.5bar (50psi)
Electric supply voltage	220V/380V230V/400V 3PH
	110V 220V 230V 1PH
Motor power	0.75 (3phase, single speed)
	0.85/1.1kw (3phase dual speed)
	1.1kw (single phase)
Rotation speed	7-14rpm
Max. spindle torque	1200Nm
Package size	1400×880×980
Net weight	243kg STND 310kg G
Noise under work condition	< 70dB (A)
temperature	-5℃~45℃
R.H	30%~95%
altitude	Max. 1000M

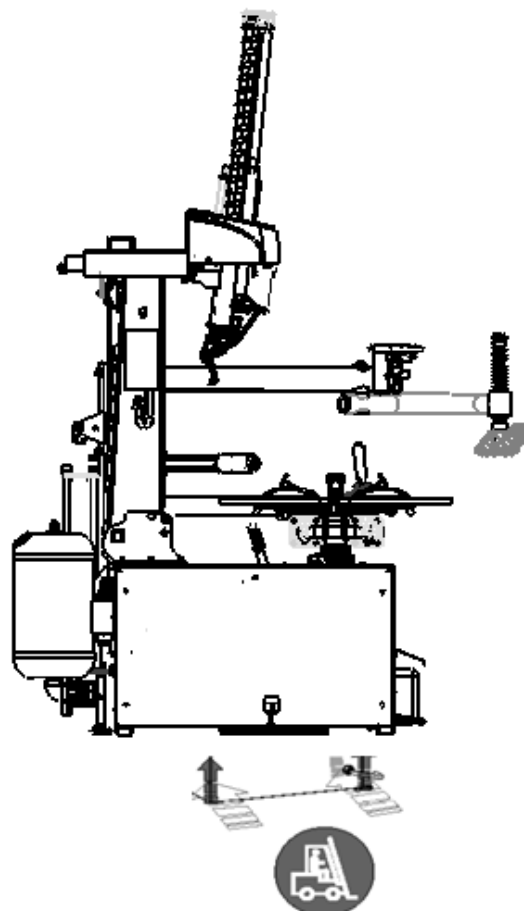
Technical specification (standard configuration):

Different due to the size of the turntable

Outside clamping size(inch)	15-24
Inside clamping size(inch)	15-26
Max. tire size (inch)	26 (610mm)
Max. tire wide (inch)	15 (305mm)
Bead breaking force (10bar)	2500kg
Work pressure	10bar (145psi)
Max. inflation pressure	3.5bar (50psi)
Electric supply voltage	220V/380V230V/400V 3PH
	110V 220V 230V 1PH
Motor power	0.75KW (3phase , single speed)

Outside clamping size(inch)	15-20
Inside clamping size(inch)	15-24
Max. tire size (inch)	24 (610mm)
Max. tire wide (inch)	12 (305mm)

	0.85/1.1kw (3phase dual speed)
	1.1kw (single phase)
Rotation speed	7-14rpm
Max. spindle torque	1200NM
Package size	1480×1050×1050
Net weight	387kg STND 430kg GT
Noise under work condition	< 70dB (A)
temperature	-5℃~45℃
R.H	30%~95%
altitude	Max. 1000M



3. Transportation, unpacking & storage

3.1 Transportation

The transportation should apply the original package.

The tire changer packed should be carried by the forklift with the proper load. Insert the fork as per the position indicated (Fig3.1) .

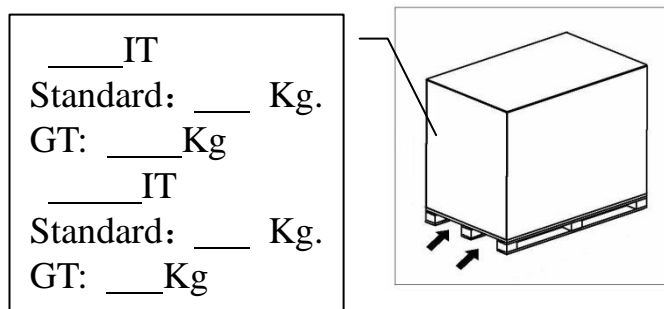


Fig3-1

3.2 Unpacking

	<p>The tire changer with the motor should not be used in the environment with the danger of explosion.</p>
--	--

Remove the cupboard and nylon bag used for protection.

Check whether the equipment is perfect to endure the parts are not missing and without any damage.

	<p>If you have any question, do not use the machine, contact the dealer.</p>
--	--

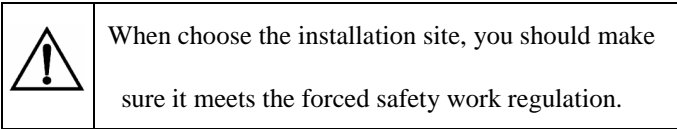
3.3 Storage

If you need long term of storage, you should ensure the switching off of the power supply and lubricate the clamping

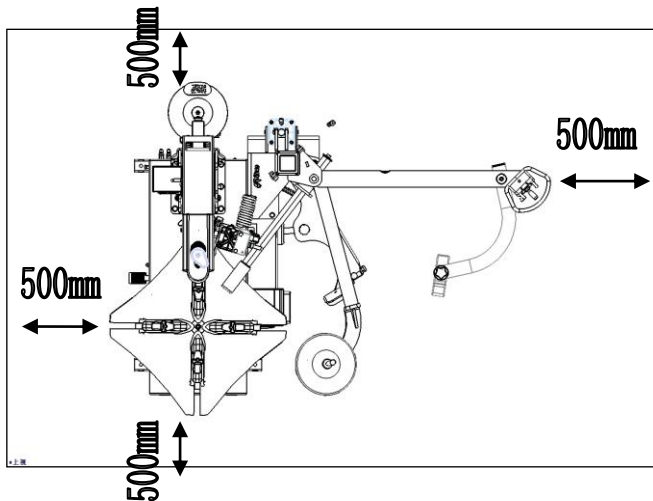
jaw guide rail on the turntable to prevent the oxidization.

4. Installation

4.1 Space requirement



The tire changer must be connected with the power supply and air supply. Hence, we suggest to install the tire changer near the power supply and air supply for the convenience of correct use of all the parts of the machine. If installed outdoors, the machine should be equipped with the shelter to prevent the rain.



4.2 Assemble the parts

4.2.1 Assemble column

Before installation and commission, you should carefully read the manual. The modification without the permission of the manufacturer will cause the damage to the machine.

The person to install and commission must have some knowledge of electrical.

The operators must under the special train.

Before installation, you must carefully check the equipment list. If you have any question, immediately contact the dealer or our company. To secure the smooth installation and commission, you should prepare the following common tools:

2 pc monkey wrench (10") , 1pc socket wrench, inner hex spanner, 1 set of screw driver, 1pc hand hammer and 1pc universal electric meter

4.2.2 Open the box

4.2.3 As per the instruction to open the box, open the box. Remove the package material. Check if there is not any damage during transportation and if the spare parts are intact.

4.2.4 Take the package material from the working field where to properly handle as per the local laws and regulation.

4.2.5 Assemble the column

Place the machine cabinet on the ground stably in the working field. Open the accessory box. Take out the rotation shaft assembly (Fig4-1 A) and push-out shaft assembly (Fig4-2 B) and clean up and spread the grease.



Fig 4-1

4.2.6 Unscrew off the fix screw on the side panel (Fig4-2 A), Detach the side panel (Fig4-2 B) and the fix screw on the tool box (Fig4-2 C) . Take out the tool box.

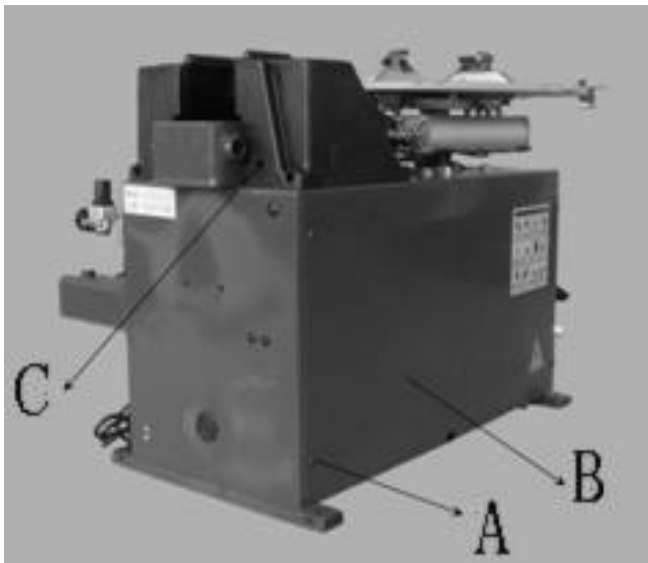


Fig 4-2

4.2.7 Rise up the column. Insert the PU hose at the bottom (Fig4-3 A) into the open at the top of the machine cabinet (Fig4-3 B) . Adjust the position of the column to align the rotation shaft bushing (Fig4-4 A) to the rotation shaft seat at the upper seat of the machine cabinet (Fig4-4 B) . Take out

the nut and washer at one end of the rotation shaft assembly (Fig4-1 A) and insert the shaft into the hole, making the end face of the shaft at the position 1mm lower than the plane of the seat. Screw the washer and nut with the torque of 70N·m.

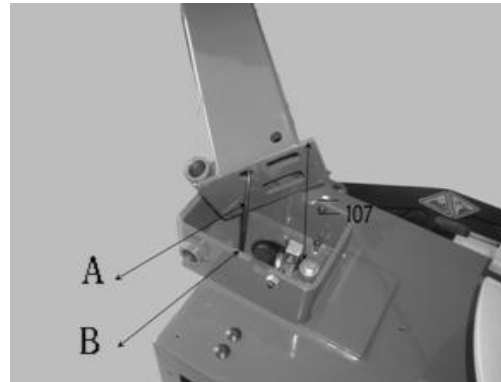


Fig 4-3

4.2.8 Tilt back the column. Cut up the tie belt between the retention level (Fig4-5 A) and put out cylinder piston rod (Fig4-5 B) .

4.2.9 Position the $\Phi 16$ hole under the column (Fig4-6 A), Detach the retaining washer at one end of push-out shaft (Fig4-1 B), Insert through $\Phi 16$ hole and into the corresponding holes of the retention rod (Fig4-6E) and push-out cylinder piston rod (Fig4-6 D) . And out from the hole at the other end and mount the elastic washer.

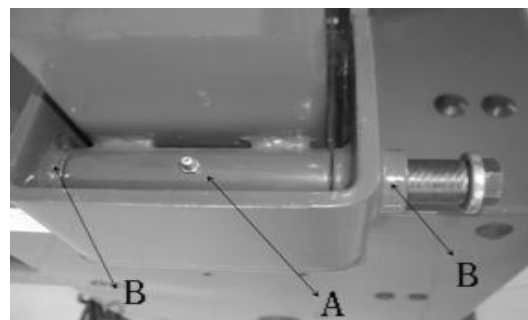


Fig 4-4

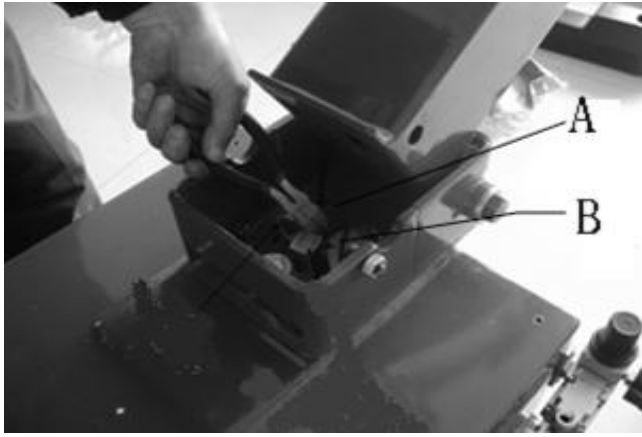


Fig 4-5

4.2.10 Connect the PU hose described in the step 4.2.7 into the PU hose of the machine cabinet and insert into the Tee of the air source pipe (Fig4-7)

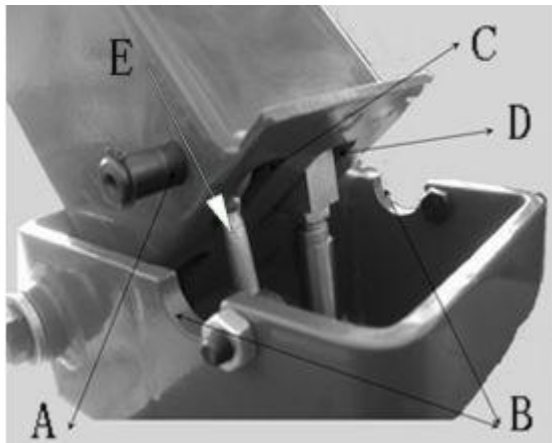


Fig 4-6

2.11 Mount the horizontal arm protective cover and detach the cap nut in the front (Fig4-8 A) and the protective cover fix screw at the back (Fig4-8 B) and fix screw (Fig4-8 C) on the vertical shaft cap (Fig4-8 D) and take out the vertical shaft cap.



Fig 4-7



When you detach the vertical shaft cap, you should support the vertical shaft to prevent the slide of the vertical to cause the damage to the machine and injury to the person.

4.2.12 Remove the package of the protective cover. Mount the vertical shaft spring (Fig4-9 D), vertical shaft cap and fix screw (Fig4-8 D), (Fig4-8 C) and fix.

4.2.13 Adjust the set screw at the 2sides of the column. Release the nuts at the 2sides. Adjust the screw heads making the gap between them and the side plane of the column is 0.3mm (Fig4-10) . Lock the nuts.

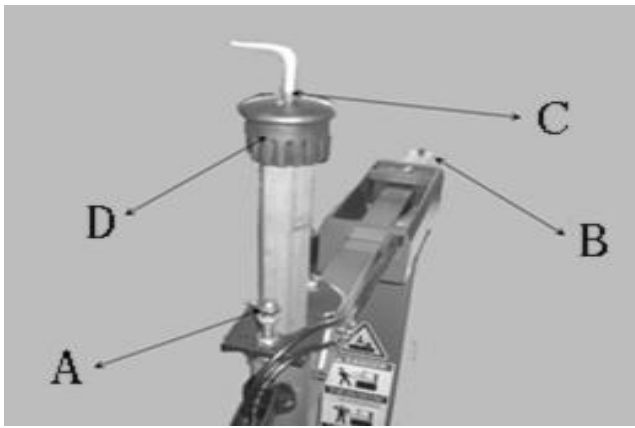


Fig 4-8

4.2.14 Air test:

After connect the air source, press down the lock valve press button Fig2-2 to lock the horizontal arm. Step down column tilting pedal (Fig2-11) and the column will tilt back by about 25 °. The tilting speed of the column has been set to be about 2 seconds before the machine is delivered out of the factory. After long us, the speed will become too slow or too fast. You can use the speed adjust valve at the two head of the push-out cylinder. Release the nut and clockwise adjust the speed of the screw to be slow and counterclockwise adjust the speed of the screw to be fast. After adjustment, tighten the nut.

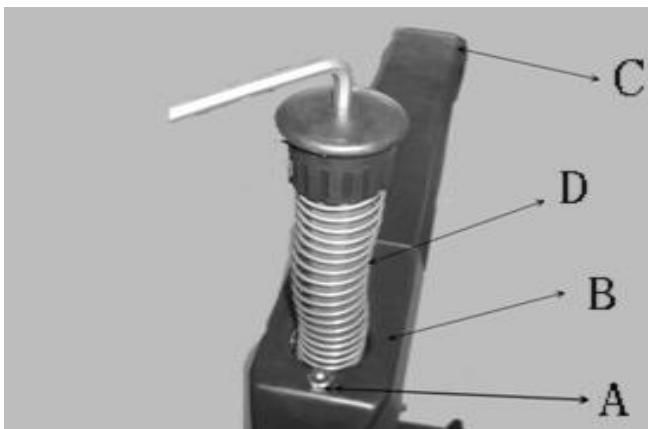


Fig 4-9

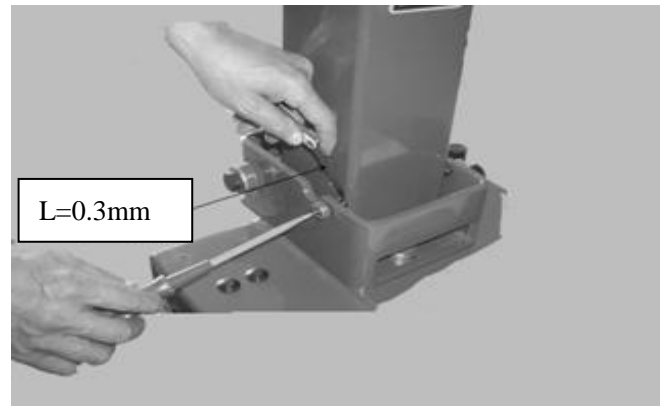


Fig 4-10

4.2.15 Install the bead breaker arm

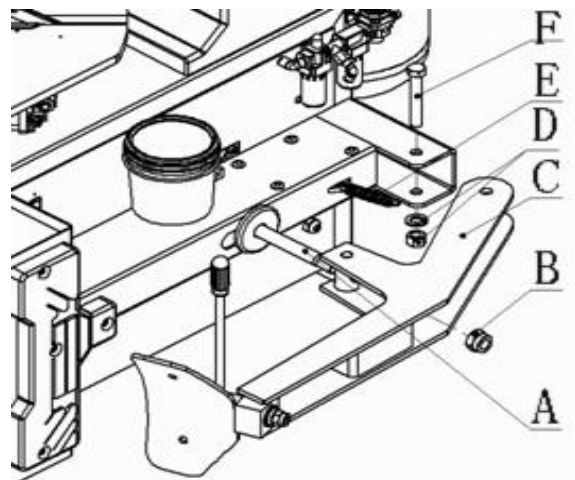


Fig 4-11

4.2.16 Unscrew the stop nut (Fig4-11 B) from the top end of bead breaker piston rod and unscrew the bolt connect on the machine cabinet (4-11 F) (4-11 D) . As per the instruction of Fig4-11, insert the bead breaker blade (4-11 C) through the cylinder piston rod (4-11 A) . Hang one end of the bead breaker arm spring (4-11 E) on the machine cabinet and then insert the bolt (4-11 F) through the machine cabinet and blade and use the nut and flat washer (4-11 D) and bolt (4-11 F) to connect and fix. Tighten the stop nut (4-11 B) and bead breaker cylinder piston. Hang the other end of the bead breaker arm spring (4-11 E) Fig 4-11 on the spring pin shaft (4-12 A)

4.2.3 Air source

4.2.3 First take out the air source connect (Fig4-14 A) from the accessory box. Insert the connect at the outlet of the air source (Fig4-13 A). After installation, insert the air source quick insert into the air source connect.

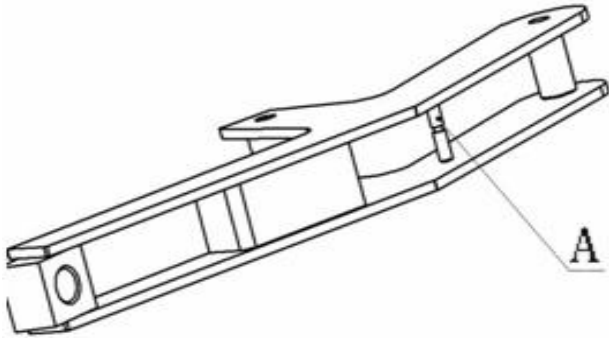


Fig 4-12

Note: When you install the air source, you should switch off it!

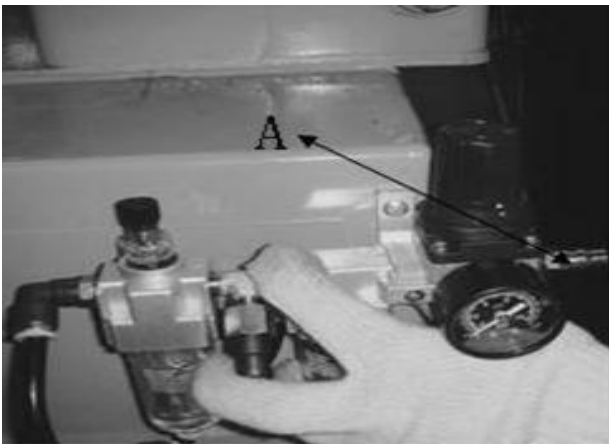


Fig 4-13

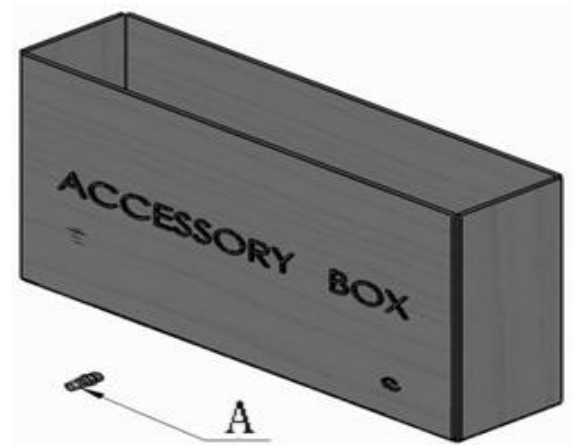


Fig 4-14

4.2.2 Install and connect pressure gauge

Via screw (Fig4-15 B), fix the pressure gauge (Fig4-15 A) on the column (Fig4-15 C).

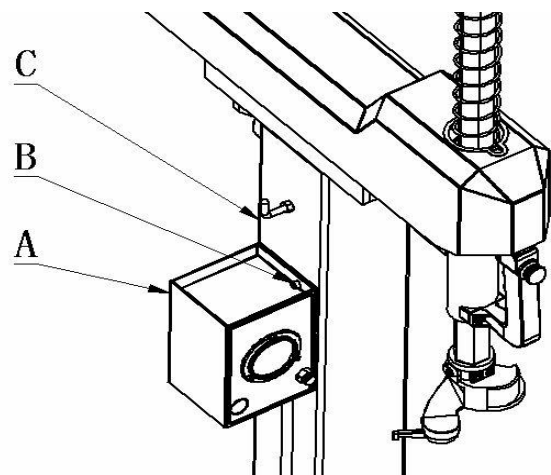



Fig 4-15

4.3 Commission

	<p>All the work related to electrical must be undertaken by the professional persons to secure the power supply is correct and also secure the phase connection is correct. The improper electrical wiring will damage the motor and will not be under the warranty.</p>
--	--


Check whether the characteristic of your system meets the requirement of the machine. If you have to change your

machine's operation electrical voltage, please refer to the Chapter 9 "electrical scheme" to undertake the necessary adjustment on the terminator.

	<p>Connect the machine to the electrical system which should be equipped with fuse. Perfect grounding should meet local national regulation. If necessary, you should equip the equipment with the electric leakage protection device to secure the safety running of the equipment. If the tire changer without power supply plug, it is necessary for the user to install one, the min. electrical current of which should be 16A and meet the relative regulation and the electrical voltage of the machine.</p>
---	---

4.4 Operation test

When step down the pedal (Fig4-17 K), the turntable will rotate clockwise. When rise up the pedal (Fig4-17 K), the turntable will rotate counterclockwise.

	<p>If the rotation direction of the turntable is different from the direction described in 4.4, change the wires at the 3-phase terminal.</p>
---	---

Step down the pedal H, column U tilt back and once rise up the pedal, the column will back to its work position;

Step down the pedal I, 4 pieces of clamping jaw will open and once rise up the pedal, they will close;

Step down the pedal J, bead breaker blade will go

to the work position and once rise up the pedal, it will return to its original position;

When fix button at Y position, the tool arm U and the horizontal arm C will be locked;

When fix button at Z position, the tool arm U and the horizontal arm C will be released;

Note: When the tire mounted is heavier than 25Kg, please select the lifting device model SR68 or the other lifting device. But it is prohibited to lift by the human force.

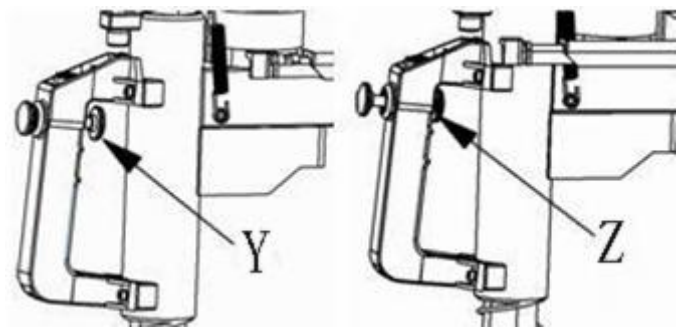


Fig 4-16

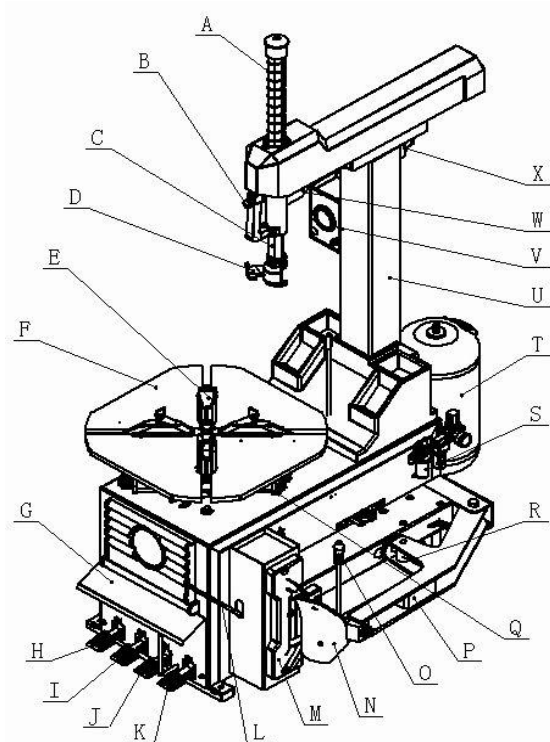





Fig 4-17

Check whether the tire is deflated. If no, deflate the air in the tire and close the clamping jaw completely.


	<p>To avoid damaging the tube, you need to position the core of the wheel at the right side of the tool head with the distance of 10cm (Fig5-5)</p>

	<p>When break the bead, if the clamping jaw at the open position, it will be very dangerous to the hand of the operator. During bead breaking process, never contact your hand with the wall of the tire.</p>
---	---


5.Operation


	<p>You must use machine after you read and understand the entire manual and its warning. Before use, deflate the air in the tire and remove all the weights attached on the wheel.</p>
---	--

The operation of tire changer consists of : a) bead breaking
b) demounting tire c) mounting tire

	<p>We suggest the tire changer should be equipped with pressure adjust device.</p>
---	--

5.1 Breaking bead

	<p>When break the bead, you should be very careful. When the bead breaking pedal drives the bead breaker arm to move fast and forceful, the bead breaker arm will cause danger and crash to everything in its moving area.</p>
---	--

	<p>Spread the lubrication oil or the similar grease on the bead. The lubrication oil applied must be featured with non-toxic, harmless and non-flammable. Not using the grease will cause the serious damage to the bead.</p>
---	--

Lean the wheel against the wheel guard (Fig5-1 M) , as Fig5-2. Lean the bead breaker blade (Fig5-1 N) against the bead 1cm from the rim. Note that the blade is leaned against the tire not the rim. Step down the pedal (Fig5-1 J), move the blade, when the blade moves to the limit of its travel, release the pedal and rotate the tire slightly until the tire is completely detached from the rim.

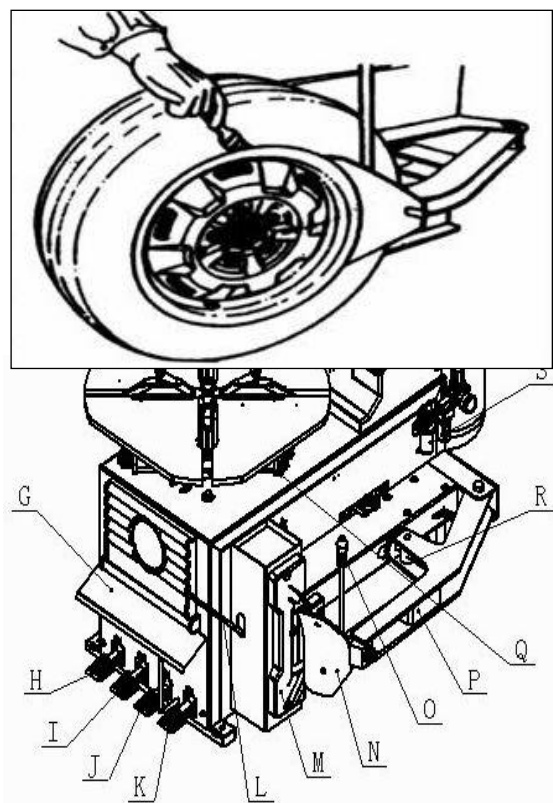




Fig 5-1

Fig 5-2

5.2 Demounting tire

	<p>Before operation, you must secure all the weights has been detached from the wheel and check the deflation of the tire.</p>
---	--


	<p>When the column tilts back, you must secure there is not any person behind the column.</p>
---	---


5.2.1 Step down the pedal (Fig5-1 H) to tilt down the column.


Step down the clamping jaw open/close pedal, the jaw will open.

Use the tire press block to press the center of the rim and then step down the clamping jaw open/close pedal to clamp the tire on the turntable.



	<p>Secure the rim is firmly fixed on the clamping jaw.</p>
---	--

	<p>During the process to lock the rim, never place your hand under the rim. The correct method to fix is the tire is just at the center of the turntable.</p>
---	---

	<p>Never place your hand on the wheel. When the column back to its work position, the hand of the operator will be crashed in between the tire and rim,</p>	
<p>Outer clamping Refer to the position of the clamping jaw on the turntable (Fig2-1 F and Fig1-5) to place the tire. Step down the pedal (Fig5-1 I) to the middle position. Place the tire on the clamping jaw and press down the rim. Step the pedal (Fig5-1 I) to the limit position.</p>	<p>Inner clamping Refer to the position of the clamping jaw (Fig2-1 E) to position the tire to make it completely closed. Place the tire on the clamping jaw and press down the rim. Step the pedal Fig5-1 I) to open the jaw to clamp the rim.</p>	

Position the lock press button at the position (Fig4-16 Y) to release the lock of the tool arm M.

5.2.2 Move the tool arm downwards making the tool head above the rim. Position the lock button at the position (Fig4-16 Z) to lock the entire tire demounting assembly.

This kind of lock is the vertical and horizontal lock. The distance from the tool head to the rim is 2mm (Fig5-3) .

Insert the crowbar in between the bead and tool head (Fig5-5) making bead move above tool head.

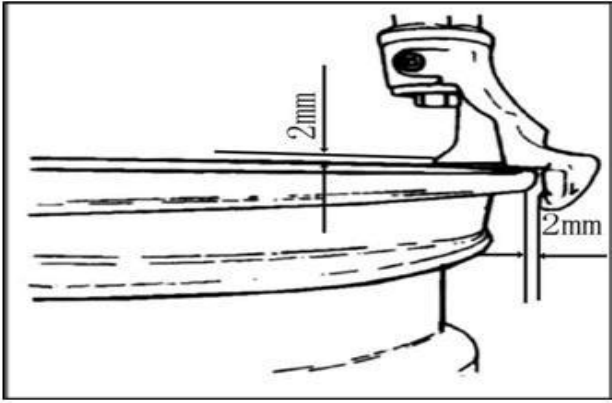


Fig 5-3



Necklace, bracelet and loosen cloths or the foreign objects near the moving parts will cause danger

5.2.3 As shown in the figure, use the helper press roller to press the tire.



5.2.4 Move the tool head downward to reach out the tool hook.



5.2.5 until the tool hook deeply into the inside of

the tire



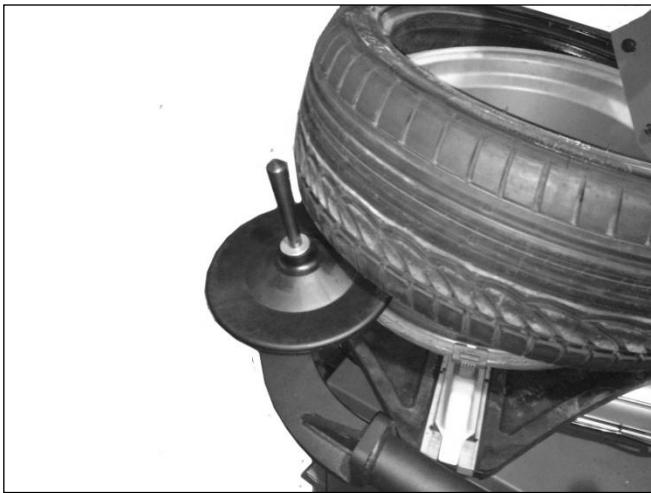
5.2.6 Push upward the tool head handle valve to take back the tool hook. At this moment, the tool hook has detached the tire from the rim.



5.2.7 Step down the main shaft rotation switch to make the turntable carry the tire rotates clockwise.



5.2.7 Use the tire support disk on the helper.



5.2.8 Press down the tool hook handle to extend the tool hook.



5.2.9 Use your hand to rise up the outside of the tire and press upward tool hook handle to hook up the tire.



5.2.10 Step down the main shaft rotate switch to make the turntable drive the tire clockwise rotate.



5.3 Mounting tire

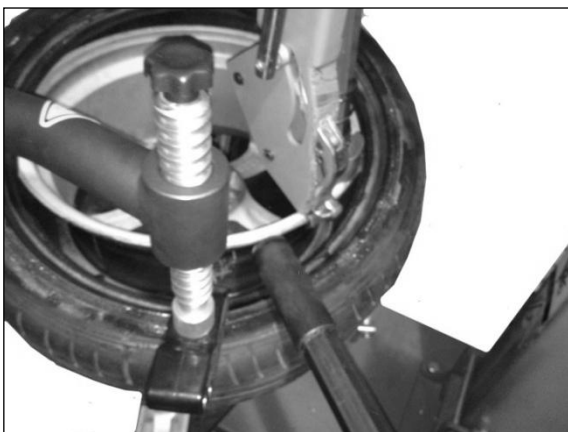
5.3.1 Place the tire repaired and the new tire on the rim as shown in the following figure.



5.3.2 Clockwise rotate the turntable to drive the rim.



5.3.3 As the figure shown, press the tire press roller and the tire presser under the edge of the rim.



5.3.4 Clockwise rotate the turntable to drive the rim.

	<p>The most important is to check the rim and tire to prevent the explosive during re-inflation process. Before installation, you should secure:</p> <p>Tire and tire thread fiber not damaged. If you find the damage, do not mount the tire;</p> <p>The rim without dent and warp by visual check.</p> <p>Note that there is not any small scratch inside the Alum alloy rim. These are dangerous, especially while inflation.</p>
--	--

Use the special grease to lubricate the bead for fear the bead to be damaged and convenient to operate.


	<p>When lock the rim, do not place the hand under the tire. The correct operation is to position the tire at the center of the turntable.</p>
--	---

22inch turntable clamping range: 10-20inch is the inside clamping without washer; 12-24inch is the outside clamping


	<p>While the column is tilting, you should make sure that nobody is standing behind the column.</p>
--	---

	<p>If the tire changer handle the same size of the rim, it is no need to frequently lock or release the lock of the tool arm. What you need to do is only to tilt back and forward the column and</p>
--	---


	keep the tool arm at the work position.
--	---

	Never place your hand on the wheel. The column back to its work position will crash the operator (in between the rim and tool head.)
---	---


Move the tire making the bead pass under the tool head. The buckling part of the bead will lean against the back of the tool head. Use your hand to press the bead into the groove of the rim. Step down the pedal (Fig5-1 K) making the turntable rotate clockwise. Continue this operation until the tire is completely into the rim.


	To prevent the industrial accident, when the turntable rotates, keep your hand and the other part of your body far away from the tool arm.
---	--

Put in the tube, repeat the above operation

	When demount and mount the tire, the turntable will clockwise rotate. Counterclockwise rotate on the condition that the machine turns off causing the wrong operation and must make correction.
---	---

6. Inflation


	You should be very carefully when inflate the tire. Seriously follow the following instruction due to design of the tire changer does not consider the prevention the persons around from the accidental tire burst.
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	Tire burst will cause the serious injury or death to the operator. Carefully check whether the size of the rim and tire is the same. Before inflation, you should check whether there is any fault and abrasion on the tire. After each inflation, you should check the pressure. All of our tire changers is limited to the max. inflation air pressure of 3.5 巴 equal to 51psi. No matter how, it will not exceed the pressure value suggested by the manufacturer. And keep your hand and body far from the tire.
---	--

6.1 Use the inflation gauge to inflate the tire. On the condition of the standard mode, our tire changers are equipped with the inflation gauge. The process is as follows:


- ① Connect the inflation gauge with the core of the tire.
- ② Check whether the size of the tire is mating with the size of the rim.
- ③ Check whether the bead has been fully lubricated. If necessary, undertake the lubrication.
- ④ Inflation, Check the air pressure of the pressure gauge.
- ⑤ Continue inflation. Check air pressure while inflation.



	<p>Danger of explosive !</p> <p>When inflate the tire, do not exceed 3.5bar (51psi); If need relative high air pressure, detach the tire from the turntable and place into the special tire cage to inflate, Never exceed the inflation pressure suggested by the manufacturer. Keep your hand and the body behind the tire being inflated. Only can the person under the professional training inflate the tire. The other persons should not stand near the tire changer and operate.</p>
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6.2 Use the IT system to inflate the tire

When inflate the tubeless tire, it is convenient to use IT system to inflate.

	<p>During this process, the noise can reach 85dB. At this time, we suggest to use the noise protection.</p>
---	---

- ① Fix the wheel on the turntable and connect the inflation head with the core of the tire.
- ② Check whether the size of the tire is mating with the size of the rim.
- ③ Check whether the bead has been fully lubricated. If necessary, undertake the lubrication.


- ④ Step down the pedal to the middle position.
- ⑤ Inflation, Check the air pressure of the pressure gauge. Continue inflation. Check air pressure while inflation until the pressure reach the pressure value required.

	<p>Danger of explosive !</p> <p>When inflate the tire, do not exceed 3.5bar (51psi); If need relative high air pressure, detach the tire from the turntable and place into the special tire cage to inflate, Never exceed the inflation pressure suggested by the manufacturer. Keep your hand and the body behind the tire being inflated. Only can the person under the professional training inflate the tire. The other persons should not stand near the tire changer and operate.</p>
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7. Helper installation and operation (helper is optional)

PL330 left helper and AL335 right helper is the important assist device to the tire changer. You can attach one or both to the tire changer with the turntable larger than 20" , helping demount and mount the stiff and run flat tire difficult or impossible to complete only be human force.

7.1 Left helper installation

	<p>Switch off the power supply and air source before installation!</p>
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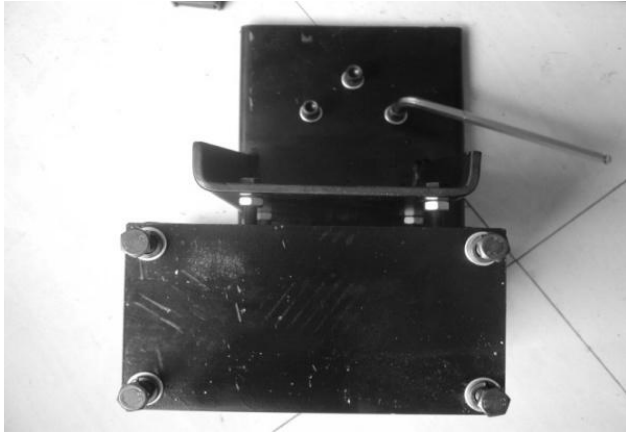


Fig 7-1



Fig 7-2

7.1.1 There is the installation hole prepared at the back of the base plate of the machine cabinet of each machine that can handle the tire more than 20". Before installation, detach the side panel and then the T rubber plug.

7.1.2 Open the package box of PL330 helper and then check whether the spare parts is are intact as per the packing list Fig 7-2. And then take out the base frame assembly (Fig7-1) and detach the screw and washer on it.

7.1.3 Push the base plate of the base assembly into the machine cabinet from left back, making the thread hole align to the reinforcement hole. Use

the bolt and washer to fix (Fig7-2) .

7.1.4 Place the main frame support (Fig7-3 A) on the base assembly Fig 7-3. Align and use the screw unscrewed before Fig (7-3) to fix. Remind not too tight.

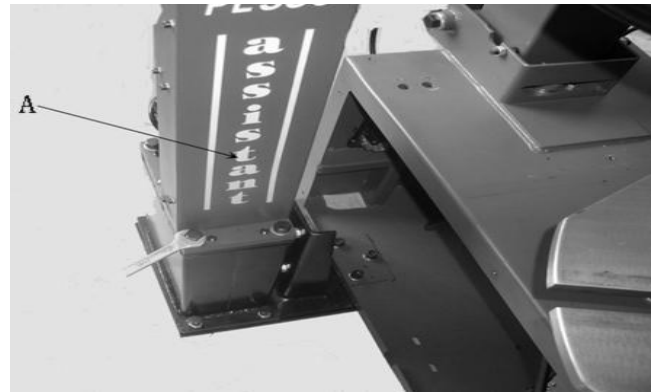


Fig 7-3

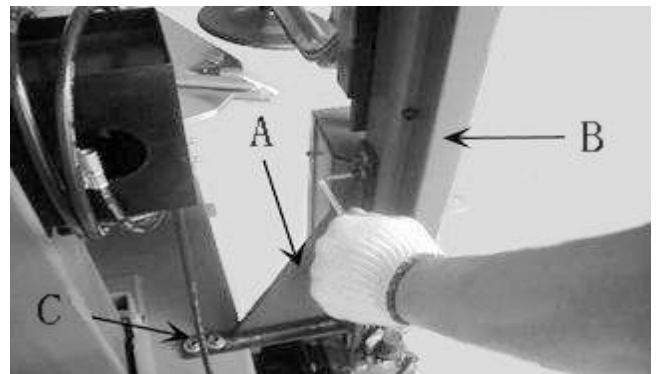


Fig 7-4

7.1.5 Use the fix bracket (Fig7-4 A) to connect the main frame support with the machine cabinet and insert the screw to fix.

7.1.6 Use the Y Tee to connect the air source (Fig7-5 A) and the other end is connected with the helper pressure valve inlet.

7.1.7 Connect the air route. Insert the tire press roller connect rod (Fig 7-6 A) into the rotating arm rotating shaft hole (Fig7-6 B) . Operate the handle direction changing valve to make the tip of the tire press conic roller align with turntable

center (Fig7-7). If there is any difference, adjust the position of the base (Fig7-4) to achieve the coincidence and then lock each bolt after regulation.

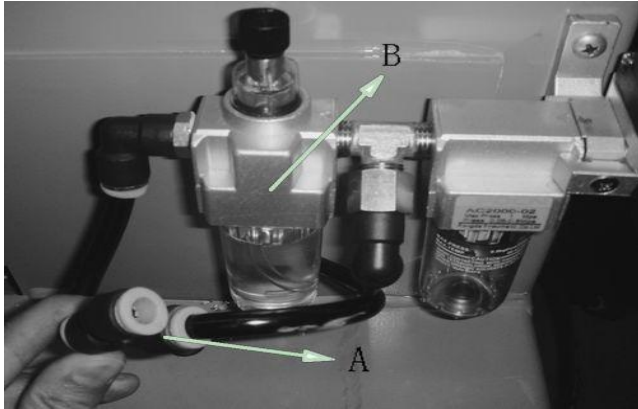


Fig 7-5

7.1.8 As per (Fig7-8) fix the fix bracket on the main frame and then use the lock nut to tight.

7.1.9 As Fig7-9, fix the cone bracket on the main frame and install the tire press cone on the bracket.

7.1.10 Release the nut under the seat and screw the screw downward until lean against the floor and then tighten the nut (Fig7-10). And install the side panel and tool box detached (7.1.1). The installation of the left helper is completed.

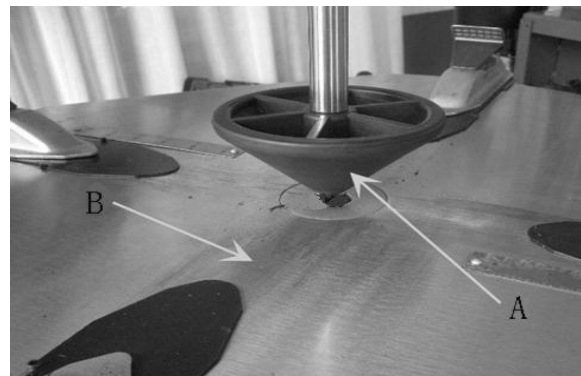


Fig 7-7



Fig 7-8



Fig 7-9

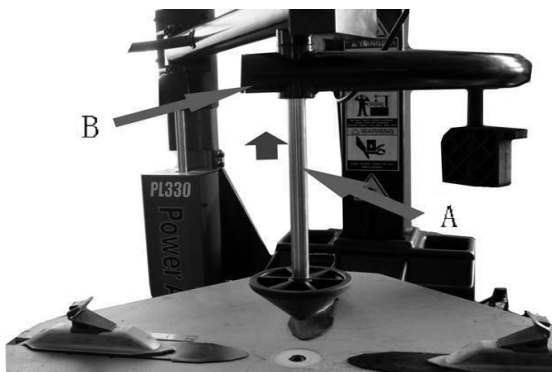


Fig 7-6

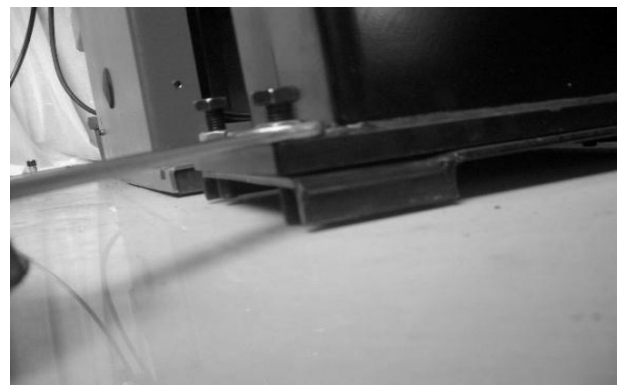


Fig 7-10

7.2 Right helper operation

7.2.1 Detach the rim from the tire as per the instruction in Chapter 5. With the optional helper, operate as follows.

7.2.2 Position the clamping jaw in the clamping range.



Fig 7-11

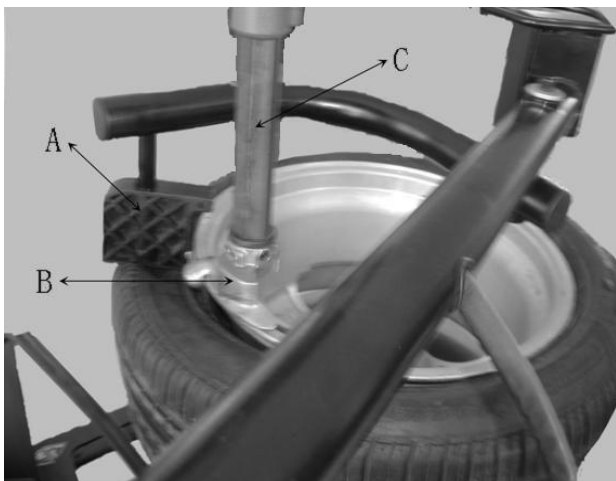


Fig 7-12

And then place the rim in the clamping jaws on the turntable. And then position the tire press cone at the center of the rim as (Fig7-11) . Push downward the manual valve handle to press down the rim until the edge of the rim under the plane of the clamping jaw and at this moment, you can

clamp the rim. Rise up the support arm to the non-work position and take out the press cone and place it on the rack (Fig7-9 A) .

7.2.3 Use the tire press (Fig7-12 A) to press down the tire section by section making the rim separate from the bead and use the brush to spread the grease on the edge of the bead Fig 7-12. Position the tool head (Fig7-12 B) at the working position. Use the tire press to press down the tire lip and insert the crowbar in between the rim and tire lip under the tool head (Fig7-13), Rise up the tire press and move to the position opposite to the tool head and press into the tire detaching groove and then turn over the crowbar to take the tire lip over the tool head. (Fig7-14) Start the turntable and demount the upper tire lip.



Fig 7-13



Fig 7-14

7.2.4 Demount the bottom tire lip: Use the bead breaker disk to rise up the tire from the bottom of the bead (Fig7-15) . Demount the bottom tire lip (Fig7-16) as per step 5.1.5.

7.2.5 Mount tire

First refer to steps (5.2.1) ~ (5.2.3) , mount the bottom tire lip. Use the tire presser to press down the tire lip as shown in Fig7-17. Clockwise rotate the turntable by 90° . Then clamp the tire presser at the tool head (Fig51) . Continue rotating the turntable until the operation is completed.



Fig 7-15



Fig 7-16



Fig 7-17

7.3 Right helper installation:



Before installation, you must switch the power supply and air source!

7.3.1 Open up the package box and check as per the accessory list and Fig7-18. Clean the equipment for assembly. After assembling, it looks as Fig7-19. Prepare the tools required. The accessory is as follows:

- A fix plate
- B inner hex screw M10X20 (plain washer) 2sets
- C inner hex screw M10X25 (nuts and plain washer) 2sets
- D hex screw M10X130 (nut and plain washer) 4sets
- E ø8PU hose

- F $\phi 8$ Y Tee
- J base plate
- H cushion
- I tool box



Fig 7-18



Fig 7-19

7.3.2 First place the cushion (Fig7-18) on the horizontal steel on the machine as Fig7-19, aligning 4holes of the cushion.

7.3.3 Place the machine cabinet of the helper on the cushion vertically , Align 4holes of the base with the holes of the cushion. Use the screw (Fig7-18 D) to fix and install into the 4holes (Fig7-20), And insert the base plate (Fig7-18 J) into the corresponding screw from bottom and tighten the screw.



Fig 7-20

7.3.4 Detach the air source outlet pipe. Use one small section of $\phi 8$ PU hose to connect the Y Tee with the outlet. And the other end is connected with the air source pipe (Fig7-5)



Fig 7-21

7.3.5 Plug one end of $\phi 8$ PU hose (Fig7-5 A) into the remaining connect of Y Tee. And the other end is plugged into the inlet of the pressure regulation valve.

7.3.6 Use the part (Fig7-18 B) to fix the part (Fig7-18 A) on the corresponding position of the helper column and tighten. Use the part (Fig7-18 C) to connect part (Fig7-18 I) and (Fig7-18) and tighten (Fig7-22) .



Fig 7-22

7.3.7 Adjust the vertical condition of the helper column. Release the screw (Fig7-21) according to the situation of the helper to regulate the set screw on the helper base making the position of the column be vertical (Fig7-22) . If the column tilts outward, screw downward the two set adjust screw outside to make the column be vertical. If the column tilts inward, screw downward the two set adjust screw inside to make the column be vertical. After adjustment, fix and lock the 4pc hex screw.



Fig 7-23

7.3.8 Connect the air source and push upward the

control valve handle and the helper movement seat will slide upward and if the handle moves downward, the seat will slide downward. If without air leakage, crawl and shake and all the parts running normally, the installation is completed.

7.4 Right helper operation

7.4.1 Prepare as per the universal tire changing requirement to clamp the tire on the turntable.

7.4.2 Use the press roller gradually press the tire meanwhile rotate the turntable, and use the brush to spread the lubricate the grease or thick soap on the rim (Fig7-24)



Fig 7-24

7.4.3 Position the column at the work position and fix the tool head at the position meeting the requirement as Fig7-25.

7.4.4 Insert the crowbar in between the rim and tire as Fig7-25) . Use handle valve(Fig 7-24)to rise up the press roller. Turn the crowbar to take the tire lip to the position above the tool head (Fig7-26), Clockwise rotate the turntable until the upper bead comes out completely.

7.4.5 Make the tool head as the support , Insert the crowbar into the bottom tire lip. Use the round bead breaker disk to rise up the tire from bottom and move it upwards (Fig 7-27) and drop the bead breaker disk to the non-work position.

7.4.6 Turn the crowbar to take the bottom tire lip over the tool head (Fig7-28) . Clockwise rotate the turntable until the tire completely detached from the rim.

Fig 7-27

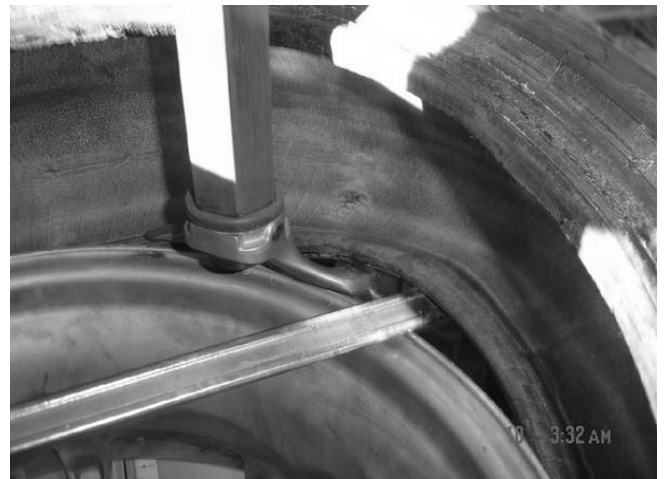


Fig 7-25



Fig 7-26



Fig 7-28

7.4.7 Mount tire

Before installing the tire, you should clean the oil and dirt on the rim. And spread the lubrication oil on the upper and bottom tire lip. First mount the bottom tire lip (Fig7-29).

7.4.8 Position the upper tire lip over the tail of the tool head. And then press the press roller on the tire. Make the upper tire lip lower than the head of the tool head. Clockwise rotate the turntable by 90° and then you need to add the tire pressing assist device as (Fig7-30) . Continue rotating the turntable until the tire is completely mounted.

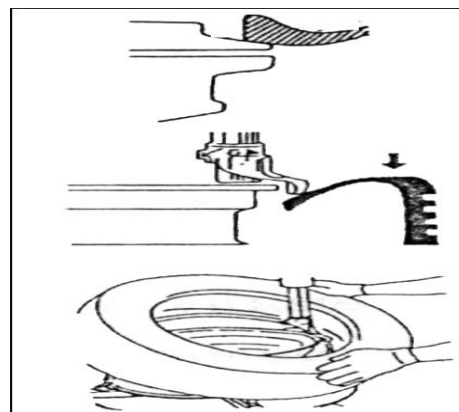


Fig 7-29




Fig 7-30

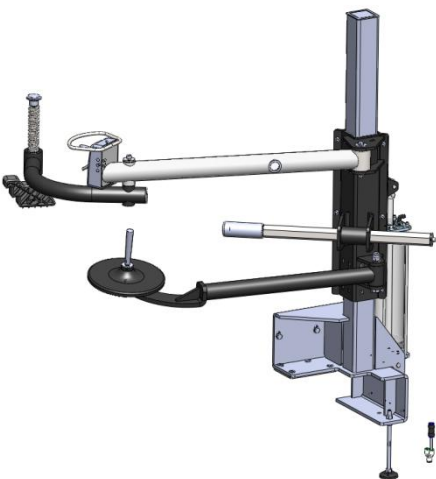


Fig 7-31

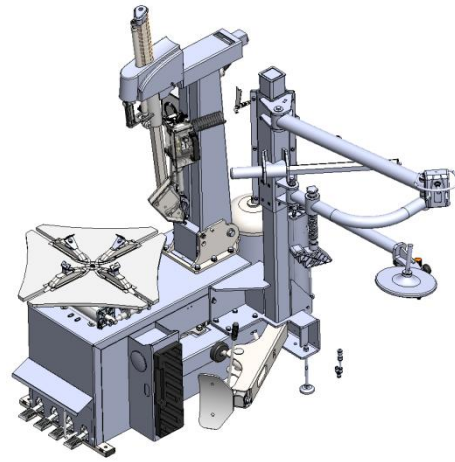
7.4 Install the left helper (II type)

	<p>Before any maintenance, switch off the electrical supply and air source.</p>
---	---

7.4.1 Take the helper out of the package container and install the corresponding parts as per the figure.




7.4.2



Use the spanner to fix the helper on the left of the machine and tighten the corresponding screw and nut.


8. Maintenance

8.1 Note

	<p>It is forbidden that the unauthorized personnel undertake maintenance.</p>
---	---

The routine operation described in the manual is necessary for the correct operation and long service life of the machine. If not regular maintenance, the reliability and operation of the machine will be effected and cause the danger to the operator and the persons nearby.

It must be undertaken by the professional persons to change the fault parts with the parts supplied by the manufacturer (pressure limit/regulate valve)

	<p>Hereby, the manufacturer will not be responsible for the damage arising from the use of the other producers' spare parts or the changes and modification or detach the</p>
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	safety device.
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8.2 Maintenance

Every week, use the kerosene to clean the turntable to prevent the come out of the dust. Lubricate the clamping jaw guide rail. Check the oil level of the grease container at least every 30days. If necessary, release the screw and fill in the oil tank oil tank (Fig8-1), Only use the lubrication oil(ISO VG viscosity, ISOHG grade) to lubricate the compressed air route.

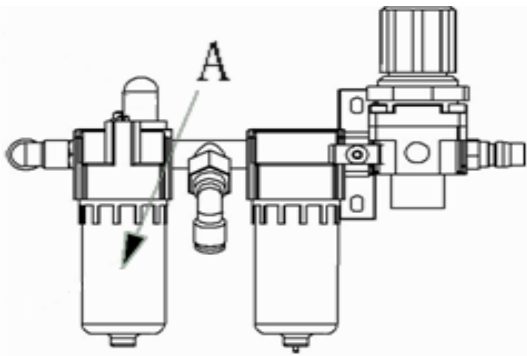


Fig 8-1

Check whether one drop of oil will drop after 3-4 times of stepping down the pedal (Fig2-1 I) . If not, use the top end screw to adjust (Fig8-1) .

First time of using for 20days, tighten the fix screw on the turntable chute(Fig23) **Note: The system pressure has been adjusted before the machine is delivered out of the factory. It is prohibited to adjust air regulator without authorization.**

If it is without power, check whether the driving belt is loose.

Via special adjust screw on the motor rack (Fig8-2)to detach the driving belt.

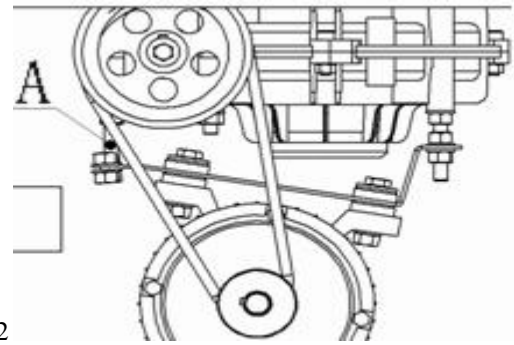


Fig 8-2

8.3 Clearance adjustment between the tool head and rim

8.3.1. Vertical clearance: Adjust hex shaft lock plate: Switch off the air source and detach the protective cover of the vertical hex shaft. If the clearance is too big, you can downward adjust the upper and bottom nut at the front end of the hex lock plate. If small, you can upward adjust the upper and bottom nut at the front end of the hex lock plate. (Fig8-3 A、B)After connect the air source, observe the shift condition

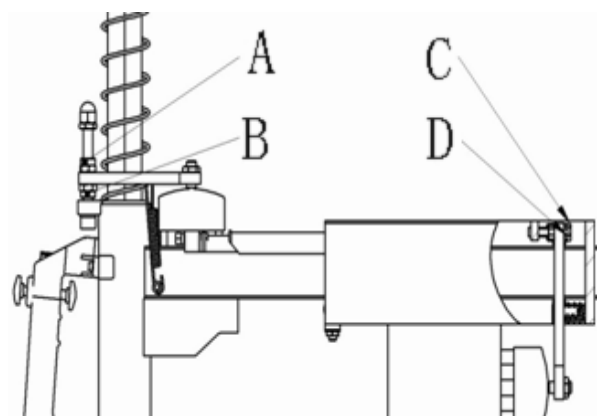


Fig8-3

8.3.2Use spanner to loose the lock nut on the M6 screw at the two end. Adjust the M6 screw (Fig 8-3 C), meanwhile use your hand to push the quadric shaft until it runs smooth and then lock the nut.

-Use the spanner to adjust the screw (Fig8-3 B) in the middle and meanwhile lock the horizontal arm

8.4 Pedal switch repair

Switch off the power supply and air source and remove the protective cover. You can take out the entire pedal assembly and repair the pedal switch.

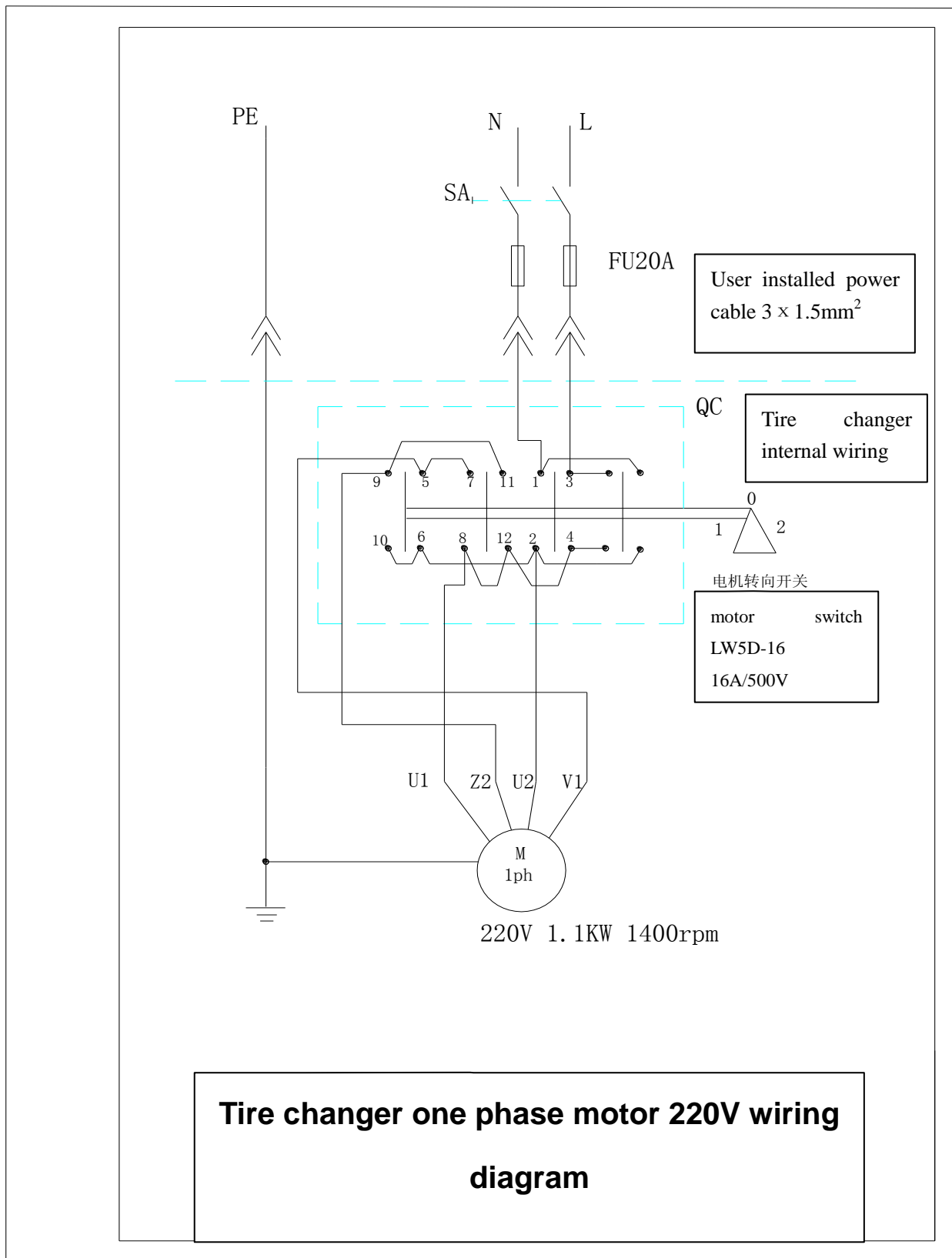


9. Troubleshooting

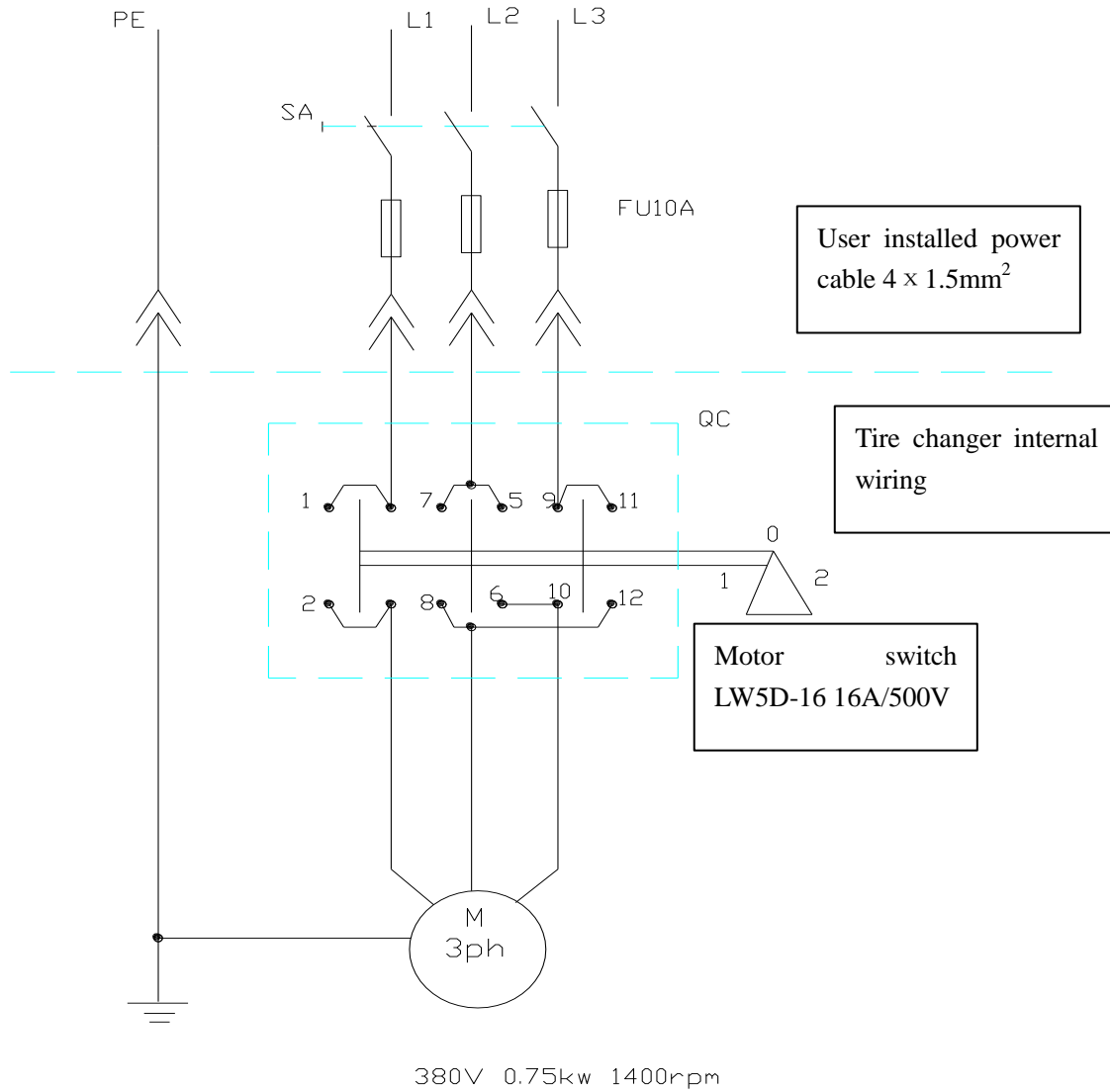
TROUBLESHOOTING	REASON	SOLUTION
Turntable rotates in one direction.	Universal switch contact burned	Change Universal switch
Turntable does not rotate.	Belt damage Belt too loose Motor or power source have problems Universal switch contact damage	Change belt Adjust the tension of the belt Check motor, power source and power source cable Change motor if motor burned Change Universal switch
Turntable cannot clamp the rim as normal	Claw worn Clamp cylinder air leakage	Change claws Change the air leakage sealing parts
Quadric and hexangular shaft cannot lock	Lock plate not in position Lock cylinder air leakage	Adjust the adjust screw of the lock plate Change the cylinder sealing washer
The horizontal arm fault The vertical movement of the hexangular jamming	The lock position of the quadric lock position not correct The lock position of the hexangular lock position not correct	See Chapter V Adjust the quadric/hexangular lock plate
Column tilt backwards or the return too fast or slow	The deflate of the column cylinder too fast/slow and the air source pressure too slow	Open the side panel and adjust the throttle (3.2.1)
Chassis pedal not return.	Pedal return spring damage	Change torsion spring
Motor not rotate or the output torque not enough	Drive system jam Capacitor broken down Voltage not enough Short-circuit	Remove the jam Change capacitor Wait for the restore of the voltage Remove
Cylinder output force not enough	Air leakage Mechanic fault Air pressure not enough	Change sealing parts Remove the fault Adjust the air pressure to meet the requirement

Chapter 9 Electrical and pneumatic scheme

220V electrical scheme

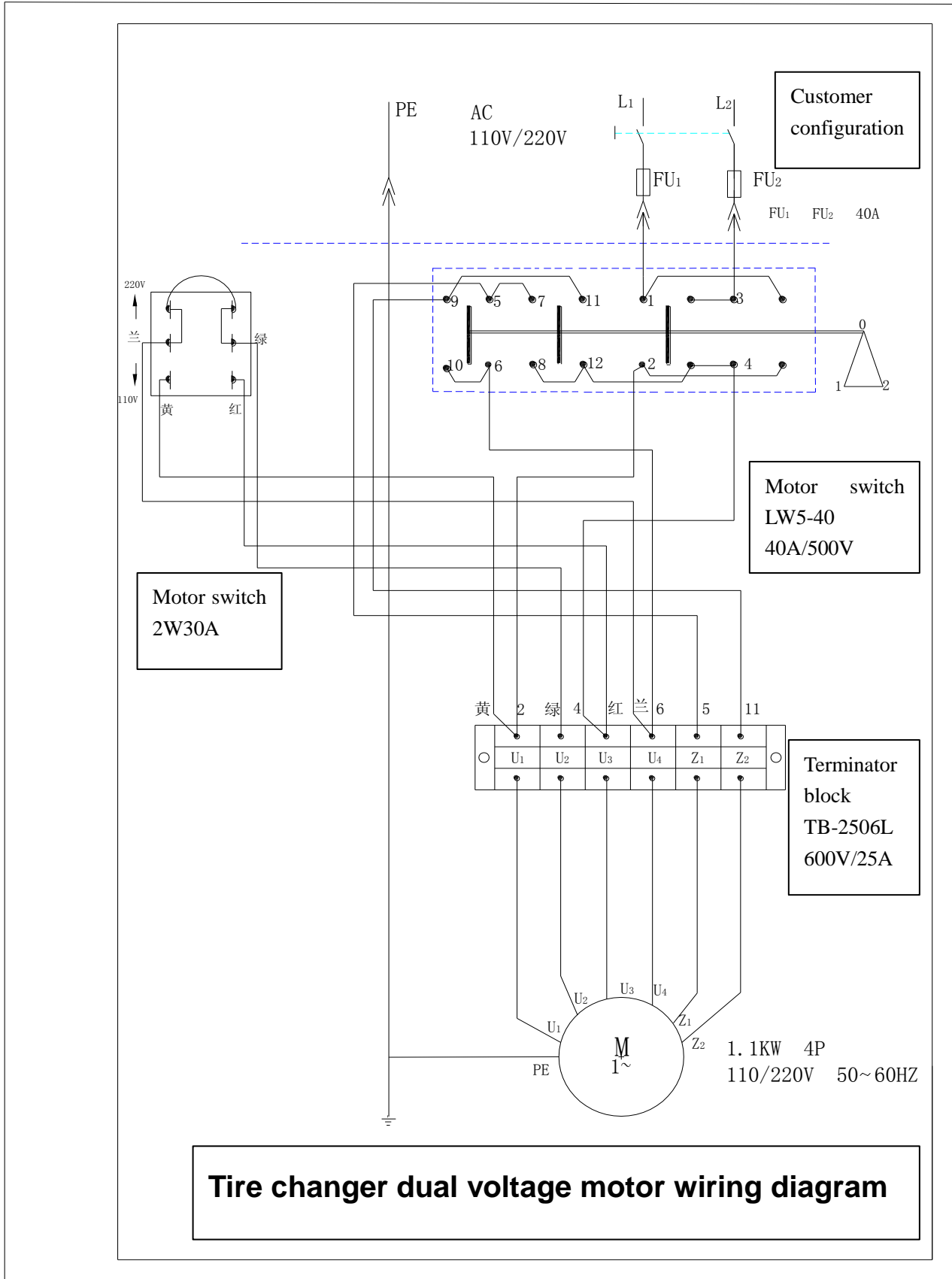


380V Electrical scheme



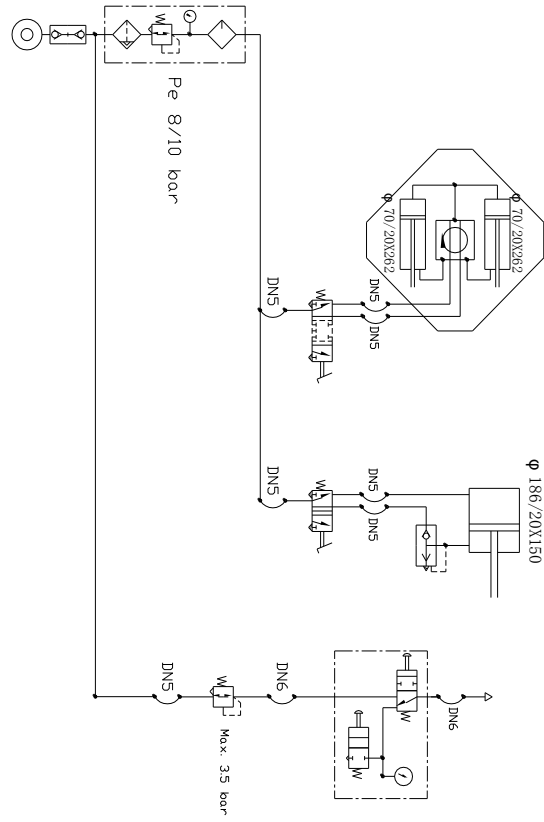
Tire changer 3 phase motor 380V wiring diagram

110/220Electrical scheme

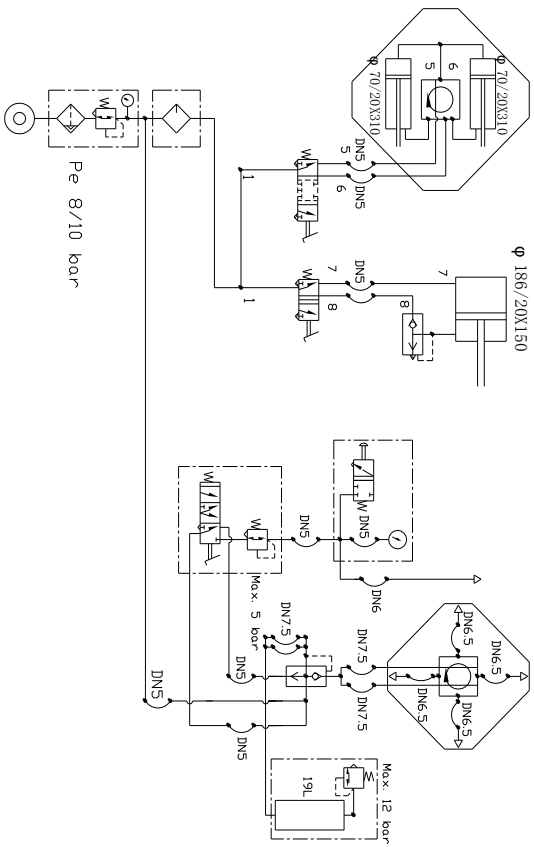


Pneumatic scheme

Semi-automatic pneumatic scheme



Semi-automatic burst inflation pneumatic scheme



It is absolutely prohibited to inflate
on the tire changer!

The manufacturer has the right to modify the machine
without notifying the buyer in advance

